RAW SEQUENCE LISTING PATENT APPLICATION US/08/484,537

DATE: 10/01/98 TIME: 17:41:15

INPUT SET: S28940.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

```
ENTERED
 1
                                       SEQUENCE LISTING
 2
 3
    (1)
           General Information:
 4
 5
          (i) APPLICANT: QUEEN, Cary L.
                         CO, Man Sung
 6
 7
                         SCHNEIDER, William P.
                         LANDOLFI, Nicholas F.
 8
 9
                         COELINGH, Kathleen L.
                         SELICK, Harold E.
10
11
        (ii) TITLE OF INVENTION: IMPROVED HUMANIZED IMMUNOGLOBLINS
12
13
14
        (iii) NUMBER OF SEQUENCES: 113
15
16
         (iv) CORRESPONDENCE ADDRESS:
               (A) ADDRESSEE: Townsend and Townsend Khourie and Crew
17
18
               (B) STREET: 379 Lytton Avenue
19
               (C) CITY: Palo Alto
               (D) STATE: California
20
21
               (E) COUNTRY: US
22
               (F) ZIP: 94301
23
          (V) COMPUTER READABLE FORM:
24
25
               (A) MEDIUM TYPE: Floppy disk
26
               (B) COMPUTER: IBM PC compatible
27
               (C) OPERATING SYSTEM: PC-DOS/MS-DOS
28
               (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
29
30
        (vi) CURRENT APPLICATION DATA:
               (A) APPLICATION NUMBER: 08/484,537
31
32
               (B) FILING DATE:
               (C) CLASSIFICATION:
33
34
35
        (vii) PRIOR APPLICATION DATA:
36
               (A) APPLICATION NUMBER: US/07/634,278
37
               (B) FILING DATE: 19-DEC-1990
38
39
               (A) APPLICATION NUMBER: US 07/590,274
40
               (B) FILING DATE: 28-SEP-1990
41
42
        (vii) PRIOR APPLICATION DATA:
43
               (A) APPLICATION NUMBER: US 07/310,252
               (B) FILING DATE: 13-FEB-1989
44
45
        (vii) PRIOR APPLICATION DATA:
46
```

RAW SEQUENCE LISTING PATENT APPLICATION US/08/484,537

DATE: 10/01/98 TIME: 17:41:16

												INI	PUT S	ET: S	28940.1
47		(A)	APPLICA	ATIO	N NUI	MBER	: US	07/	290,	975					
48		(B)	FILING	DATI	E: 28	8 – DE	C-19	88							
49															
50	(viii)	ATTORNEY/AGENT INFORMATION:													
51		(A) 1	NAME: S	smith	h, W	illi	am M								
52			REGISTI												
53		(C) 1	REFEREI	MCE/I	DOCK	ET N	UMBE:	R: 1	1823	-002	500				
54															
55	(ix)	TELEC	OMMUNI	CATIO	II NC	NFOR	MATI	: NC							
56		(A) '	TELEPHO	ONE:	(41	5) 3:	26-2	400							
57		(B) '	TELEFA	K: (4	415)	326	-242	2							
58															
59	(2) INFO	RMATIO	N FOR	SEQ I	ID NO	0:1:									
60															
61	(i)	SEQUENCE CHARACTERISTICS:													
62		(A) LENGTH: 106 amino acids													
63			(B) TYPE: amino acid												
64			(C) STRANDEDNESS: single												
65		(D) TOPOLOGY: unknown													
66															
67	(ii)	MOLEC	ULE TYI	?E: p	prote	ein									
68				•											
69	(111)	HYPOTI	HETICAL	L: NO)										
70															
71															
72	(1X)	FEATU													
73			NAME/KI												
74 75			LOCATIO				/	L_ (11 7 7	: _ L] .			ر ع ـ	-1	
75 76		(D)	OTHER :								e re	gion	OI	ine i	nouse
70 77			anc.	i-Tac	3 an	CIDO	ау т.	ignt	cna.	ın."					
78															
79	(vi)	SEOUE	NCE DES	COTI	יחדתים	NT - C1	PO TI	O NO	. 1 .						
80	(112)	DUQUE	.,сп рп.	JUNI			og I	110	• - •						
81	Gln	Ile V	al Leu	Thr	Gln	Ser	Pro	Ala	Tle	Met	Ser	Ala	Ser	Pro	Glv
82	1	,		5	·				10		201			15	,
83				-											
84	Glu	Lys Va	al Thr	Ile	Thr	Cvs	Ser	Ala	Ser	Ser	Ser	Ile	Ser	Tvr	Met
85		-	20			-		25					30	•	
86															
87	His	Trp Pl	he Gln	Gln	Lys	Pro	Gly	Thr	Ser	Pro	Lys	Leu	Trp	Ile	Tyr
88		3!			_		40				-	45	-		•
89															
90	Thr	Thr S	er Asn	Leu	Ala	Ser	Gly	Val	Pro	Ala	Arg	Phe	Ser	Gly	Ser
91		50				55					60				
92															
93	Gly	Ser G	ly Thr	Ser	Tyr	Ser	Leu	Thr	Ile	Ser	Arg	Met	Glu	Ala	Glu
94	65				70					75					80
95															
96	Asp	Ala A	la Thr	Tyr	Tyr	Cys	His	Gln	Arg	Ser	Thr	Tyr	Pro	Leu	Thr
97				85					90					95	
98	_		_	_			_								
99	Phe	Gly S	er Gly	Thr	Lys	Leu	Glu	Leu	Lys						

RAW SEQUENCE LISTING PATENT APPLICATION US/08/484,537

DATE: 10/01/98 TIME: 17:41:17

100				100					105				IN	PUTS	ET: S	28940.r
100 101				100					105							
102	(2) INFO	RMAT]	ron 1	FOR :	SEO	TD N	0:2:									
103	(~,				E											
104	(i)	SEQU	JENC	E CH	ARAC'	TERI:	STIC	S:								
105	(A) LENGTH: 107 amino acids															
106					amin											
107							sing	le								
108					GY:		_									
109																
110	(ii)	MOLE	ECULI	E TY	PE: j	prot	ein									
111																
112	(iii)	HYPO	THE!	rica:	L: No	0										
113																
114	_															
115	(ix)	FEAT	TURE	:												
116					EY:											
117	(B) LOCATION: 1107(D) OTHER INFORMATION: /note= "Variable region of the human															
118		(D)) OTI								iabl	e re	gion	of ·	the 1	numan
119				Eu a	anti	oody	lig	ht c	hain	. "						
120																
121		~								_						
122	(X1)	SEQU	JENCI	E DE:	SCRI	PTIO	N: S	EQ I	D NO	:2:						
123	3	T]_	a1		ml	~ 1	~	D	a	m1	.	a		~	**- 7	~1
124	_	Ile	GIN	мет		GIN	ser	Pro	ser		Leu	Ser	Ата	ser		GTA
125	1				5					10					15	
126 127	λen	Arg	Val	Πh r	Tla	mb ×	Cuc	λ ~ ~	λl a	Cor	aln	802	т1.	λαη	mb∽	mrn.
128	нар	Arg	Val	20	TIE	1111	Cys	ALG	25	Ser	GIII	Ser	116	30	1111	Пр
129				20					2.5					30		
130	I.eu	Ala	Trn	Ψvr	Gln	Gln	T.vs	Pro	Glv	T.vs	Δla	Pro	T.vs	T. 2 11	T. - 211	Met
131	204		35	- 1 -			_,_	40	- 1	_,_			45	Lou	Lou	1100
132								- •								
133	Tyr	Lys	Ala	Ser	Ser	Leu	Glu	Ser	Gly	Val	Pro	Ser	Ara	Phe	Ile	Glv
134	-	50					55		-			60	J			•
135																
136	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
137	65					70					75					80
138																
139	Asp	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn	Ser	Asp	Ser	Lys
140					85					90					95	
141			_	_	_											
142	Met	Phe	Gly		Gly	Thr	Lys	Val		Val	Lys					
143				100					105							
144		D145 ===			~											
145	(2) INFO	RMAT)	LON I	FOR S	SEQ :	ID NO	0:3:									
146		a=		n ~			~m=~	~								
147	(1)	SEQU							_							
148								acid	5							
149 150					amino EDNE		ia sing:	1.0								
151					GY: 1		_	T.C								
152		()	, 101	. 01100	JI. (-111VII	> W11									
174																

RAW SEQUENCE LISTING PATENT APPLICATION US/08/484,537

DATE: 10/01/98 TIME: 17:41:17

		11.1 61 BE1. BE0/10.													
153	(ii)	MOLECULE TYPE: protein													
154	,,,,,	INDOMURATOR - NO													
155	(111)	HYPOTHETICAL: NO													
156															
157	4 4 3	reamine.													
158	(1X)	FEATURE:													
159		(A) NAME/KEY: Protein													
160		(B) LOCATION: 1116													
161		(D) OTHER INFORMATION: /note= "Variable region of the mouse													
162		anti-Tac antibody heavy chain."													
163															
164	4 4 3	ADAMBAGE BEAGETEMENT, ADA ED MAIA													
165	(X1)	SEQUENCE DESCRIPTION: SEQ ID NO:3:													
166	a1	Tel die tee die de des die 21- die tee 21- tee Des die 21-													
167		Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys Pro Gly Ala													
168	1	5 10 15													
169	g	Val Tura Wat Gam Gura Tura bla Gam Glas Man Mha Mha Mha Gas Man													
170	Ser	Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr													
171		20 25 30													
172	3	Not lie man wel two als has bee also also also fee also man the													
173	Arg	Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile													
174		35 40 45													
175 176	01.	Myr Ilo Agn Dro Cor Mhr Cly Myr Mhr Cly Myr Agn Cly Ive Dho													
175	GIY	Tyr Ile Asn Pro Ser Thr Gly Tyr Thr Glu Tyr Asn Gln Lys Phe 50 60													
178		50 55 60													
179	Trre	Ach Ive Ale Mar Iou Mar Ale Ach Ive Con Con Con Mar Ale Mire													
180	65	Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 70 75 80													
181	65	70 75 80													
182	Mot	Cin Lou Sor Sor Lou Thr Dho Ciu Acn Sor Ala Val Tur Tur Cua													
183	Mec	Gln Leu Ser Ser Leu Thr Phe Glu Asp Ser Ala Val Tyr Tyr Cys 85 90 95													
184		90 93													
185	Δla	Arg Gly Gly Cly Val Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu													
186	AIG	100 105 110													
187		100													
188	Thr	Val Ser Ser													
189		115													
190															
191	(2) INFO	RMATION FOR SEQ ID NO:4:													
192	, . ,														
193	(i)	SEQUENCE CHARACTERISTICS:													
194	` '	(A) LENGTH: 117 amino acids													
195		(B) TYPE: amino acid													
196		(C) STRANDEDNESS: single													
197		(D) TOPOLOGY: unknown													
198		• •													
199	(ii)	MOLECULE TYPE: protein													
200	` '	•													
201	(iii)	HYPOTHETICAL: NO													
202															
203															
204	(ix)	FEATURE:													
205	, ,	(A) NAME/KEY: Protein													

RAW SEQUENCE LISTING PATENT APPLICATION US/08/484,537

DATE: 10/01/98 TIME: 17:41:18

													TITE	OI D	<i>1</i> 01. 3	20770.1
206				CATI												
207		(D)	OTI								iable	e re	gion	of 1	the l	numan
208				Eu a	antil	pogà	hear	vy cl	nain	. "						
209																
210																
211	(xi)	SEQU	JENCI	E DES	SCRI	PTIO	N: SI	EQ I	D NO	:4:						
212																
213	Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ser
214	1				5					10					15	
215																
216	Ser	Val	Lys		Ser	Cys	Lys	Ala		Gly	Gly	Thr	Phe		Arg	Ser
217				20					25					30		
218						_			_				_		_	
219	Ala	Ile		Trp	Val	Arg	GIn		Pro	GТĀ	GIn	СТĀ		GLu	Trp	Met
220			35					40					45			
221	a1	a 1	- 1 -	7		V-1	5 1-	~1	~	5					_	-1
222	GTÀ	Gly	тте	vaı	Pro	мет		СТА	Pro	Pro	Asn	_	Α⊥а	GIn	Lys	Phe
223		50					55					60				
224	al m	a1	1	17.5	mb	T1.	mb	27.0	N ===	a1	C	ml	3	ml	31-	m
225	65	Gly	Arg	val	Thr		Thr	ATa	Asp	GIU		Thr	ASN	Thr	АТа	_
226 227	65					70					75					80
227	Mot	Glu	T 011	802	802	T 011	7 ~~	Cor	61. 1	yan	mbr	۸ T م	Dho	Ш	Dho	O.r.a
229	Met	Gru	геп	Ser	85	Leu	Arg	Ser	GIU	90	1111	АТа	Pile	ıyı	95	Cys
230					0.5					90					93	
230	Δla	Gly	al v	ጥህን	G] v	Tla	Ψυν	Sar	Dro	Glu	Glu	Тиг	λen	al v	Cl v	LOU
232	ALG	GIY	GLY	100	GLY	116	1 y 1	per	105	GIU	GIU	ıyı	ASII	110	СТУ	Lea
233				100					103					110		
234	Val	Thr	Val	Ser	Ser											
235			115													
236																
237	(2) INFO	RMATI	ION I	FOR :	SEO :	ID NO	0:5:									
238	` ,				-											
239	(i)	SEQU	JENCI	E CH	ARAC'	reri:	STIC	S:								
240		(A)) LE	NGTH	: 11	6 am:	ino a	acid	3							
241		(B)	TYI	PE: a	amin	o ac	id									
242		(C)) STI	RANDI	EDNE	ss: :	sing.	le								
243		(D)	TOI	POLO	GY: 1	unkno	own									
244																
245	(ii)	MOLE	ECULI	E TY	PE:]	prote	ein									
246																
247	(iii)	HYPO	THE'	rica:	L: No)										
248																
249																
250	(ix)	FEAT				_										
251				ME/KI												
252			-	CATI										_		
253		(D)	OTI							"Var:					the I	PDL
254				numa	aniz	ed a	nti-'	rac a	antil	podà	heav	vy c	nain	• "		
255																
256	2 \$	ano.	יייינווי	n n=	aar T	DM T 4.	AT . ~.	30 T								
257	(X1)	SEQU) ENC!	E DE	2CKI	L.TO	N: Si	₽Ŏ II	טא ט	:5:						
258																

SEQUENCE VERIFICATION REPORT PATENT APPLICATION *US/08/484,537*

DATE: 10/01/98 TIME: 17:41:18

INPUT SET: S28940.raw

Line

Error

Original Text